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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,586	03/23/2004	Thomas Christopher Cook	64671-0541	2233

10291 7590 11/17/2005

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EXAMINER	
BLEVINS, JERRY M	

ART UNIT	PAPER NUMBER
2883	

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/806,586	COOK, THOMAS CHRISTOPHER	
	Examiner	Art Unit	
	Jerry Martin Blevins	2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *23 March 2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 27-30 are objected to because of the following informalities:

Claim 27 claims a "plurality of buffer tubes," which would necessitate the presence at least two buffer tubes. However, the claim continues to refer to "said at least one buffer tube," which would necessitate the presence of only one buffer tube. Examiner interprets the claim to refer to a plurality of buffer tubes. Therefore, for examination purposes, examiner reads claim as "said plurality of buffer tubes" in place of "said at least one buffer tube."

Claims 28-30 are objected to due to their dependence from claim 27.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2, 3, 6, 11, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent to Story, number 4,898,451.

Regarding claim 2, Story teaches a cable, comprising a plurality of buffer tubes, wherein each buffer tube of the plurality contains a colored filling material (Figure 2 and column 2, lines 27-52).

Regarding claim 3, Story teaches the limitations of the base claim 2. Story also teaches that the colored filling material is color-coded (abstract and column 2, lines 3-26).

Regarding claim 6, Story teaches the limitations of the base claim 2. Story also teaches that the buffer tubes are color-coded (abstract and column 2, lines 3-26).

Regarding claim 11, Story teaches a system for identifying buffer tubes, comprising: a plurality of buffer tubes; and a color-coded filling material; wherein the color-coded filling material is disposed within each buffer tube of the plurality (Figure 2, abstract, and column 2, lines 3-52).

Regarding claim 14, Story teaches the limitations of the base claim 11. Story also teaches a plurality of color-coded buffer tubes (abstract and column 2, lines 3-26).

Claims 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent to Daneshvar et al., number 6,421,486.

Regarding claim 19, Daneshvar teaches a method for constructing a fiber optic cable, comprising: mixing a colorant into a filler material; and injecting the filler material into a buffer tube (abstract, column 2, line 64 – column 3, line 37, column 5, line 50 – column 6, line 42).

Regarding claim 20, Daneshvar teaches the limitations of the base claim 19. Daneshvar also teaches extruding a buffer tube around at least one optical fiber (abstract, column 2, line 64 – column 3, line 37, column 5, line 50 – column 6, line 42).

Claim 27 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent to Yamasaki et al., number 6,661,956.

Regarding claim 27, Yamasaki teaches a cable comprising a plurality of buffer tubes; optical fibers disposed within the plurality of buffer tubes and means for identifying optical fibers in a cable without coloring the plurality of buffer tubes (Figures 1-3, column 3, lines 36-67, column 4, line 62 – column 5, line 59).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4, 5, 7, 10, 12, 15-18, and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Story in view of US Patent to Zopf et al., number 6,208,790.

Regarding claim 1, Story teaches a cable comprising at least one colored filling material disposed within a buffer tube (Figure 2 and column 2, lines 27-52). Story does not teach that the buffer tube is transparent or translucent. Zopf teaches a transparent buffer tube (column 3, lines 32-42 and 53-61 and column 4, line 60 – column 5, line 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the transparent buffer tube of Zopf in the cable of Story. The motivation would have been to increase visibility of the colored filling material and thereby improve the color-coding of the individual buffer tubes.

Regarding claims 4 and 12, Story teaches the limitations of the base claims 2 and 11, respectively. Story does not teach that the buffer tubes are transparent or

translucent. Zopf teaches a transparent buffer tube (column 3, lines 32-42 and 53-61 and column 4, line 60 – column 5, line 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the transparent buffer tube of Zopf in the cable (system) of Story. The motivation would have been to increase visibility of the colored filling material and thereby improve the color-coding of the individual buffer tubes.

Regarding claim 5, Story in view of Zopf teaches the limitations of the base claim 4. Story also teaches color-coded fibers (column 1, lines 5-28).

Regarding claim 7, Story teaches the limitations of the base claim 6. Story does not teach non-color-coded filling material and transparent buffer tubes, wherein the non-color coded filling material is disposed within the color-coded buffer tubes and the color-coded filling material is disposed within the transparent or translucent buffer tubes. Zopf teaches non-color-coded filling material and transparent buffer tubes, wherein non-color-coded filling materials can be disposed within color-coded buffer tubes and color-coded material can be disposed within transparent buffer tubes column 3, lines 32-42 and 53-61 and column 4, line 60 – column 5, line 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Story with the teachings of Zopf. The motivation would have been to increase the number of individually identifiable fibers used in the cable.

Regarding claim 10, Story teaches a cable comprising a plurality of buffer tubes; a plurality of color-coded optical fibers within each buffer tube, and color-coded filling material disposed within each buffer tube wherein each buffer tube contains a different

color of filling material (Figure 2, abstract, and column 2, lines 3-52). Story does not teach that the buffer tubes are transparent or translucent. Zopf teaches a transparent buffer tube (column 3, lines 32-42 and 53-61 and column 4, line 60 – column 5, line 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the transparent buffer tube of Zopf in the cable of Story. The motivation would have been to increase visibility of the colored filling material and thereby improve the color-coding of the individual buffer tubes.

Regarding claim 15, Story teaches the limitations of the base claim 11. Story also teaches color-coded buffer tubes (abstract and column 2, lines 3-26). Story does not teach transparent or translucent buffer tubes. Zopf teaches a transparent buffer tube (column 3, lines 32-42 and 53-61 and column 4, line 60 – column 5, line 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to include a combination of the transparent buffer tubes of Zopf and the color-coded buffer tubes of Story in the system of Story. The motivation would have been to increase the number of individually identifiable fibers used in the cable.

Regarding claim 16, Story in view of Zopf teaches the limitations of the base claim 15. Story does not teach non-color-coded filling material and transparent buffer tubes, wherein the non-color coded filling material is disposed within the color-coded buffer tubes and the color-coded filling material is disposed within the transparent or translucent buffer tubes. Zopf teaches non-color-coded filling material and transparent buffer tubes, wherein non-color-coded filling materials can be disposed within color-coded buffer tubes and color-coded material can be disposed within transparent buffer

tubes column 3, lines 32-42 and 53-61 and column 4, line 60 – column 5, line 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Story with the teachings of Zopf. The motivation would have been to increase the number of individually identifiable fibers used in the cable.

Regarding claim 17, Story teaches a system for identifying optical fibers comprising a plurality of buffer tubes; color-coded optical fibers, and color-coded filling material disposed within at least one of the buffer tubes (Figure 2, abstract, and column 2, lines 3-52). Story does not teach that the buffer tubes are transparent or translucent. Zopf teaches a transparent buffer tube (column 3, lines 32-42 and 53-61 and column 4, line 60 – column 5, line 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the transparent buffer tube of Zopf in the cable of Story. The motivation would have been to increase visibility of the colored filling material and thereby improve the color-coding of the individual buffer tubes.

Regarding claim 18, Story in view of Zopf teaches the limitations of the base claim 17. Story also teaches a plurality of color-coded buffer tubes (abstract and column 2, lines 3-26). Story does not teach non-color-coded filling material disposed within the color-coded buffer tubes. Zopf teaches non-color-coded filling material and transparent buffer tubes, wherein non-color-coded filling materials can be disposed within color-coded buffer tubes and color-coded material can be disposed within transparent buffer tubes column 3, lines 32-42 and 53-61 and column 4, line 60 – column 5, line 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Story with the teachings of Zopf. The

motivation would have been to increase the number of individually identifiable fibers used in the cable.

Regarding claim 21, Story teaches a method for identifying or managing optical fibers in a cable, comprising: color-coding optical fibers; color-coding filling material; and including the filling material in at least one buffer tube (Figure 2, abstract, and column 2, lines 3-52). Story does not teach that the buffer tube is transparent or translucent. Zopf teaches a transparent buffer tube (column 3, lines 32-42 and 53-61 and column 4, line 60 – column 5, line 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the transparent buffer tube of Zopf in the method of Story. The motivation would have been to increase visibility of the colored filling material and thereby improve the color-coding of the individual buffer tubes.

Regarding claim 22, Story in view of Zopf teaches the limitations of the base claim 21. Story also teaches color-coding buffer tubes (abstract and column 2, lines 3-26).

Regarding claim 23, Story teaches a cable comprising a plurality of buffer tubes and means for identifying any one buffer tube of the plurality (Figure 2, abstract, and column 2, lines 3-52). Story does not teach that the buffer tubes are transparent or translucent. Zopf teaches a transparent buffer tube (column 3, lines 32-42 and 53-61 and column 4, line 60 – column 5, line 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the transparent buffer tube of Zopf in the cable of Story. The motivation would have been to increase visibility of the colored filling material and thereby improve the color-coding of the individual buffer tubes.

Regarding claim 24, Story in view of Zopf teaches the limitations of the base claim 23. Story also teaches that the means for identifying comprises color-coded buffer tube filler material disposed within at least two of the buffer tubes (Figure 2, abstract, and column 2, lines 3-52).

Regarding claim 25, Story in view of Zopf teaches the limitations of the base claim 24. Story also teaches that the means for identifying further comprises color-coded buffer tubes (abstract and column 2, lines 3-52).

Claims 8,13, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Story in view of Zopf as applied to claims 7, 12, and 24 above, and further in view of Yamasaki.

Regarding claim 8, Story in view of Zopf teaches the limitations of the base claim 7. Story does not teach that the cable complies with EIA/TIA-598. Yamasaki teaches a cable which complies with EIA/TIA-598 (column 4, line 62 – column 5, line 32). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Story with the EIA/TIA-598 compliant cable of Yamasaki. The motivation would have been to improve the identification of the fibers by standardizing the color-coding.

Regarding claims 13 and 26, Story in view of Zopf teaches the limitations of the base claims 12 and 24, respectively. Story does not teach at least one ring, band marking, stripe, or identification thread/tape for at least one buffer tube. Yamasaki teaches buffer tubes with identification stripes (rings or bands) and tape (column 3, lines 36-67 and column 4, line 62 – column 5, line 59). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the identification stripes

(rings or bands) and tape of Yamasaki in at least one buffer tube of Story. The motivation would have been to increase the number of individually identifiable buffer tubes.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Story in view of Zopf and further in view of Yamasaki as applied to claim 8 above, and further in view of US Patent to Blew, number 5,345,526.

Regarding claim 9, Story in view of Zopf and further in view of Yamasaki teaches the limitations of the base claim 8. Story does not teach up to 288 optical fibers, wherein each fiber is individually identifiable. Blew teaches a cable comprising up to 288 individually identifiable fibers (column 5, lines 49-61). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide up to 288 individually identifiable fibers, as taught by Blew, in the cable of Story. The motivation would have been to increase the number of individually identifiable fibers in the cable.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamasaki in view of Story.

Regarding claim 28, Yamasaki teaches the limitations of the base claim 27. Yamasaki does not teach color-coded fibers and color-coded filler material. Story teaches color-coded fibers and color-coded filler material (Figure 2, abstract, and column 2, lines 3-52). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yamasaki with the color-coded fibers and color-coded filler material of Story. The motivation would have been to increase the number of individually identifiable fibers in the cable.

Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamasaki in view of Story as applied to claim 28 above, and further in view of Zopf.

Regarding claim 29, Yamasaki in view of Story teaches the limitations of the base claim 28. Yamasaki does not teach transparent or translucent buffer tubes. Zopf teaches a transparent buffer tube (column 3, lines 32-42 and 53-61 and column 4, line 60 – column 5, line 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the transparent buffer tube of Zopf in the cable of Yamasaki in view of Story. The motivation would have been to increase visibility of the colored filling material and thereby improve the color-coding of the individual buffer tubes.

Regarding claim 30, Yamasaki in view of Story and further in view of Zopf teaches the limitations of the base claim 29. Yamasaki also teaches a ring or band marking around at least one of the buffer tubes (column 3, lines 36-67 and column 4, line 62 – column 5, line 59).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry Martin Blevins whose telephone number is 571-272-8581. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMB

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